

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

2. This application is in condition for allowance except for the following formal matters:

Claim 1 recites the limitation of the insulating element having a gross density of 50 kg/m<sup>3</sup> or less. Claim 9 recites the limitation of the insulating element of claim 1 having a gross density between 45 and 75 kg/m<sup>3</sup>. It is not clear as to the maximum density desired given that claim 9 includes gross densities outside the presently claimed gross density of claim 1. Appropriate correction is required. Further, as previously discussed and agreed upon with an Examiner's Amendment found with the Examiner's Initiated Interview dated 3/17/2010, claims 5 and 12 will be amended accordingly.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 25 USPQ 74, 453 O.G. 213, (Comm'r Pat. 1935).

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

### *Claim Objections*

3. Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is

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required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 1 recites the limitation of the insulating element having a gross density of  $50 \text{ kg/m}^3$  or less. Claim 9 recites the limitation of the insulating element of claim 1 having a gross density between 45 and  $75 \text{ kg/m}^3$ . It is not clear as to the maximum density desired given that claim 9 includes gross densities outside the presently claimed gross density of claim 1. Examiner notes that claim 5 and 12 need amending as discussed in the Examiner Initiated Interview dated 3/17/2010. Appropriate correction is required.

***Allowable Subject Matter***

4. Claims 1-6 and 10-14 are allowed.
5. The following is an examiner's statement of reasons for allowance: The present claims are found to be allowable over the closest prior art Battigelli et al. (**US 5601628**), Jensen et al. (**US 5614449**), Vignesoult et al. (**US 6284684**), Trabbold et al. (**WO 02/070417**), Audren et al. (**US 4928898**), Balcerowiak et al. (**Journal article**), Jessen et al. (**US 20040258865**), and Dyrboel et al. (**WO 00/17121**).

Battigelli et al. disclose a method for producing mineral wool and apparatus thereof wherein the reduction of beads is controlled by viscosity and pressure of the blower. Given that the examples as shown by Battigelli show a reduction of beads found within the resulting felt to be as low as 2%, wherein the present claims recite the limitation of the beads to be less than 1%, the disclosure of Battigelli is silent to producing even lower bead contents. Jensen discloses the use of binder materials and

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fiber sizes, however Jensen is silent to any bead content and as a result, the present claims distinguish over Jensen. Vignesoult discloses a mineral wool composition and use as insulation, however, Vignesoult is silent to the resulting properties after formation including the formation of beads. Trabbold discloses the formation of insulation wherein a product of finer fibers is less dense and can provide similar insulating values over denser insulation. However, the present claims are considered to be novel and unobvious over Trabbold given that the amounts of beads found after processing control the uniformity insulation values over the whole surface. As such, Trabbold remains silent to the amount of beads which in combination with the above references would not render the present claims obvious or non-novel.

Audren et al. disclose a compression coiling machine for rolling mineral fibers having densities not exceeding  $30 \text{ kg/m}^3$ . However, it is noted that Audren in combination with the above references would not fairly teach the present claims. Balcerowiak teach the use of organic binders with mineral wool. However, Balcerowiak is silent to the amount used and further, the thermal values, densities, and compression ratios desired. As such, the combination would not fairly teach the desired thermal and physical properties as presently claimed.

Jessen et al. teach a mineral wool having a specific density range and compression ranges. However, Jessen is silent to the amount of beads found and as a result, would not meet the presently claimed thermal values. Dyrobel et al. teach a mineral wool having an organic binder and mineral wool having a compression. However, Dyrobel in combination with the above references would fail to teach the

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presently claimed bead amount and as a result, the present claims are found to be allowable over the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PRASHANT J. KHATRI whose telephone number is (571)270-3470. The examiner can normally be reached on M-F 8:00 A.M.-5:00 P.M. (First Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patricia L. Nordmeyer/  
Primary Examiner, Art Unit 1794

PRASHANT J KHATRI  
Examiner  
Art Unit 1794